10th Class 2018

Math (Science)	Group-II	PAPER-II
Time: 20 Minutes	(Objective Type)	Max. Marks: 15

Note: Four possible answers A, B, C and D to each question are given. The choice which you think is correct, fill that circle in front of that question with Marker or Pen ink in the answer-book. Cutting or filling two or more circles will result in zero mark in that question.

1-1- If $u \propto v^2$, then:

(a) $u = v^2$ (b) $u = k v^2$ ✓

(c) $u v^2 = k$ (d) $u v^2 = 1$

2- A set with no element is called:

(a) Subset (b) Empty set ✓

(c) Singleton set (d) Super set

3- The number of terms in a standard quadratic equation $ax^2 + bx + c = 0$ is:

(a) 1 (b) 2

(c) 3 ✓ (d) 4

4- A frequency polygon is a many sided _____ .

(a) Closed figure ✓ (b) Rectangle

(c) Circle (d) Triangle

5- $\sec\theta \cot\theta =$ _____ .

(a) $\sin\theta$ (b) $\dfrac{1}{\cos\theta}$

(c) $\dfrac{1}{\sin\theta}$ ✓ (d) $\dfrac{\sin\theta}{\cos\theta}$

6- The arcs opposite to incongruent central angles of circle are always _____ .

(a) Parallel (b) Perpendicular

(c) Congruent (d) Incongruent ✓

7- The symbol for a triangle is denoted by:

(a) $\angle$ (b) $\triangle$ ✓

(c) $\perp$ (d) $\odot$

8- The length of the diameter of a circle is how many times the radius of the circle?

(a) 4 times
(b) 3 times
(c) 2 times √
(d) 1 time

9- If $\dfrac{a}{b} = \dfrac{c}{d}$, then componendo property is:

(a) $\dfrac{a}{a+b} = \dfrac{c}{c+d}$ √
(b) $\dfrac{a}{a-b} = \dfrac{c}{c-d}$

(c) $\dfrac{ad}{bc}$
(d) $\dfrac{a-b}{b} = \dfrac{c-d}{d}$

10- A circle has only one _____ .

(a) Secant
(b) Chord
(c) Diameter
(d) Centre √

11- How many common tangents can be drawn for two touching circles?

(a) 1
(b) 2
(c) 3 √
(d) 4

12- If $A \subseteq B$, then $A \cap B$ is equal to:

(a) A √
(b) B
(c) ϕ
(d) $A \cup B$

13- The discriminant of $ax^2 + bx + c = 0$ is:

(a) $b^2 - 4ac$ √
(b) $b^2 + 4ac$
(c) $-b^2 + 4ac$
(d) $-b^2 - 4ac$

14- A fraction in which the degree of numerator is less than the degree of the denominator is called:

(a) An equation
(b) An improper fraction
(c) An identity
(d) A proper fraction √

15- Product of cube roots of unity is:

(a) 0
(b) 1 √
(c) −1
(d) 3